AUGUST, 1889.

The monthly evening meeting was held on Monday evening, August 19th, the President, His Excellency Sir Robert G. C. Hamilton, K.C.B., in the chair.

THE LATE MR. JUSTIN BROWNE.

The PRESIDENT said: Gentlemen, before we proceed to business to-night I would remark that since our last meeting this Society has suffered the loss of a very old member who had been, I understand, 21 years a member of the Council—Mr. Justin McC. Browne. I am sure we should wish to place on record our great regret at his death, and our heartfelt sympathy with those he has left behind.

TALL TASMANIAN TREES.

The SECRETARY (Mr. Alex. Morton) stated that since the last meeting, at which the question of the height of some of the tallest Tasmanian trees had been discussed, he had been making inquiries by circular on the subject and had received some replies of value thereon. He intended to have a paper on the subject at a future meeting of the Society. Baron Von Müeller had written on this subject asking him to mention at this meeting that he (Baron Von Müeller) had never made himself responsible for measurements of 400ft. in height of any eucalyptus trees, and that in nearly all his writings on this subject he gave the names of those on whose statements he had relied too hastily in reference to exaggerated data concerning the supposed exceptional heights of certain eucalyptus. In the *Argus* of May 25 last he had set forth some of the best information obtainable, and urged new measurements of trees in Tasmania and West Australia. It would be pleasing if the Tasmanian members of the Australian Association for the Advancement of Science, who will attend the Melbourne meeting to be held in the early part of next year, could furnish for the biological section genuine measurements of Tasmania's tallest trees, or trustworthy records of past discoveries in this direction. He further suggested that an officer from the Survey Department should visit the group discovered by Mr. C. Barkley at Mount Barrow to obtain reliable data on the height of these trees.

Mr. T. Stephens furnished the following memorandum on the subject of Lady Franklin's tree :—

In June, 1881, I measured the trunk of a large tree near the Huon road, which had gone by the name of Lady Franklin's tree, and was probably identical with one of those described by the Rev. T. J. Ewing in the proceedings of the Royal Society of May 9, 1849. It had been blown down in the gale of December 26, 1880, and had been partly burnt in a bush fire some two months afterwards. The circumference of the trunk at the ground was about 70ft., but measurements round the buttresses of these large trees are not worth much for purposes of comparison. At 26ft. from the root the circumference was 27ft., and at 56ft. up it was 21ft. The total length of the stem to where it ended abruptly, being free from branches the whole way, was 266ft., and it was there 9ft. round. Sixty or seventy feet is a very moderate estimate for the height of the rest of the tree, and the total height could not be less than 330ft., and might have been much more. The tree was too much burnt to enable one to determine the species, but Mr. Ewing calls his big tree a swamp gum. My impression at the time was that the greater part of the top had been blown off, as often happens, long before the tree fell. More remains of it would have been left if it had been down only six months.

In reply to the President, Mr. STEPHENS said this tree was lying about eight miles from town. He did not know whether any portion of it remained. This would, of course, greatly depend upon what bush fires had happened in the locality.

Mr. JOHNSON directed attention to the remains of a great tree lying near the coal mines at Snug. Proofs of the huge size of this tree were easily traceable in the decayed remains. It was a very remarkable tree.

ANGORA GOAT FARMING.

The Secretary of the Royal Society stated at its last meeting that he had written to Mr. James Smith, Westwood, mentioned in the discussion which took place at the May meeting, on a paper on this subject, and that gentleman had furnished the following particulars:—

The Angora goat will, I believe, thrive in Tasmania, if not too much exposed to the inclemency of the weather, and if not stinted in its food. A pure Angora buck which I had in my flock for several years, and which did not receive any special care, seemed as hardy as a common goat and his successor in the flock seems to possess equal endurance. Having brambles ("black-berries") on some of my land, I was first led to keep "grade" Angoras, after the trial of the browsing habits of a pair, from my attention having been directed by a neighbour to the fact that a common milch goat kept by him had destroyed a number of brambles, which had become a nuisance, by feeding on their leaves and buds. When Angoras have the choice of brambles and abundance of grass, they seem to prefer the grass while it is green, but turn with evident relish to the brambles when the grass becomes withered or scant. For the better eradication of brambles by goats they should be cut low, or so reduced by burning that their young shoots may be eaten off close to the ground. It is hardly necessary to say that brambles are in many places in Tasmania beginning to encumber the ground to an objectionable extent. In destroying brambles my "grade" Angoras have been very useful, though their usefulness in this respect has been limited from the necessity of specially erected fences, with little exception, to prevent the goats from straying. The Angora goat is, like the common goat, very prone to wander, and therefore unusually close fences are necessary where it is requisite to limit the range of the goats' movements. I have seen a grade Angora in passing from an enclosure, ascend a stump and spring from it to the top of a post of a five-rail fence, and then to the ground, and when hunted it has quickly found a log from which to recross the fence in a similar manner. The first, so-called, Angora goats that I obtained were not quite pure. In order to ascertain the value of their "mohair" I sent a small quantity of it to London, where it sold at 1s. 4d. per lb., when ordinary Merino wool was selling at 10d. per lb. I was afterwards informed, however, by the Messrs. Salt, who, it is understood, manufacture mohair, that similar mohair was not worth more that 1s. per lb. It seems from my observation in the matter that by crossing with a pure Angora buck and well selected common goats, a hardy race, which begins at once to exhibit the qualities of the sire in a remarkable degree, is produced. The following extract in reference to the selection of a "stock buck" is from the *American Agriculturist* for April, 1876:—"1st. Pedigree dating back to ancestor imported from Asia. 2nd. Weight of long silky, ringletted, white fleece, and its freedom from kemp and mane on the back and neck. 3rd. Form, size, and vigour." There is an illustration in two skins which I am sending to the Hobart Museum of degrees of breeding. It will be observed that the skin from which the ears have not been removed has a better fleece than the other. The latter skin is from a goat less pure than the former. The following extract is from an article on "Goat keeping" in the *American*

Agriculturist for 1878:—"The profit from the goat can come only from the skin and hair. A large quantity of goat skins is yearly imported for tanning to produce Morocco leather, and the hair of the common goat is valued for the plasterers' use. The Angora goat bears a fleece of mohair that is valuable for several manufactures. . . By crossing with Angora males the common goat can soon be bred up to a point where the fleece is worth as much as that of the pure bred. . ." The goat will thrive where the poorest sheep would starve, but it better enjoys the rough fare of rough places than the sweetest pastures of grass. There are many rocky and half-barren localities that might be put to good use by being turned into goat pastures and there are many better pastures ill-fitted for the less hardy sheep upon which goats could be successfully kept. As to the yield of mohair from each well-bred grade Angora, I am of opinion that this would be from five to eight pounds, though I cannot speak positively as to the yield, as my Angoras usually lose a portion of their hair from coming in contact with brambles. It has been thought that as the hair of Angoras will grow to the length of 4in. in six months they might be shorn with advantage twice a year. But in any case of shearing Angoras or grade Angoras, care should be exercised that they be not exposed to an injurious extent to cold weather. In this respect nature seems to indicate by the commencement of the shedding of the hair, when the shearing can be performed with the greatest safety.

The following extract is from *The American Agriculturist*, for November, 1876 :—"In California and other of the Pacific States large flocks of grade Angoras are being bred for their skins, for which there is an increasing demand in San Jose, California, by the Angora robe, glove, and mat manufactory. The carcase is highly prized wherever introduced as food, while the milk is highly esteemedfor domestic use and the sick-room." To recur to the usefulness of goats in destroying brambles—and a single goat will do much in this respect—if herded on brambles goats will not thrive on these alone, but would require an amount of hand-feeding in the absence of sufficient grass within the enclosure. The food to be given by hand might consist of waste from the kitchen, such as turnip tops and cabbage leaves, with other things easily available on a farm. I cannot, from my own experience, disagree with the statement in the concluding portion of a paragraph in *The American Agriculturist* for October, 1878, that "There is nothing in the goat or fleece to make it preferable to sheep, excepting under circumstances in which sheep cannot be kept profitably." Goats could be kept with advantage with sheep, in some instances, as they would eat much that sheep would not, and so would tend to prevent the spread of some of the plants that are injurious to the growth of grass. For fuller information on the Angora, the *American Agriculturist* for February, 1887, refers its readers to the book, "The Angora Goat," by John L. Hayes, LL.D., price 1·50dol.

Mr. JOHNSTON stated that Angora goat farming had been carried on in Perth for many years, the hair being made into articles and sold in Launceston. It would not be necessary to go further afield than this for information on the question of whether the goats would thrive in the island.

Mr. JUSTICE ADAMS said he had made inquiries respecting the flocks observed by him between Ulverstone and Formby, and was informed they were owned by Mr. Jas. Smith and Mr. Templar, a neighbour of his. Mr. Templar's flock were kept on very poor ground, which bore out Mr. Smith's observations that poor land would suffice for farming purposes. He had also been informed that, an inquiry from a resident in a neighbouring colony as to the price of a kid had resulted in a sum of £2 10s. being asked. There were several large tracts of land too poor for sheep growing which could be utilised for goat farming.

OLD CHARTS OF TASMANIA.

Mr. Mault read a paper dealing with certain old charts captured from Captain Hayes by the French, and now lodged among the archives of France, but copied by the permission of the Government of that country. The paper dealt at length with each of the charts, and illustrated the origin of many of the original names of the Derwent and its surroundings.

Mr. McClymont complimented Mr. Mault on the care bestowed on his paper, and reviewed the earlier part of the voyage of the Marion.

Mr. Walker also spoke on the paper, quoting from the Brabourne Papers to illustrate the possibility that Flinders at the time of his detention at the Mauritius was carrying despatches from Governor King, which were regarded by his captors as a violation of the passport held by him from Bounaparte.

DISCOVERY OF A FOSSIL FISH.

Mr. R. M. Johnston read a paper, the joint production of Mr. Morton and himself, respecting the recent discovery by Mr. H. Nicholls of a fossil fish, presented by him to the Museum. The specieshad been named *Acrolepis Hamiltoni*, in recognition of the deep interest always observed by the President in the affairs of the Society.

The Secretary read a communication from Mr. Petterd, referring to a fossil fish discovered by him in a quarry near Knocklofty 18 years back, but which had not been described, but had been lost.

Mr. Stephens referred to certain correspondence received by him from Professors Stephens and McCoy asking for particulars of this discovery.

AUSTRALIAN AND TASMANIAN SANDARACH.

The Secretary read a paper by Mr. J. H. Maiden, F.L.S., F.G.S., Curator, Technological Museum, Sydney. In it the writer referred to the fact that a specimen of resin irom the Oyster Bay Pine of Tasmania, sent to the Exhibition of 1851, first drew the attention of experts to the possibilities of Australian Sandarach. For this exhibit and other gums and resins, Mr. J. Milligan was awarded honourable mention. Sandarach is one of the most valuable of Australian and Tasmanian vegetable products, a market is ready for it, and it seems strange that it should have been so long neglected. No statistics are available in regard to the importation of Sandarach into these colonies, but to bring it here at all is a veritable "carrying of coals to Newcastle." In various parts of Australia and Tasmania there are vast numbers of *Callitris* trees, and their resin, often abundant, can readily be collected, and the author is sure that even with the cheap labour of Northern Africa to contend against, it can be profitably gathered during a portion of the year. The approximate price of Sandarach in London, is 60-115s. per cwt., and there is no difference between it and the colonial article. As to the cultivation of the trees, Baron von Müeller states, "Probably it would be more profitable to devote sandy desert land, which could not be brought under irrigation, to the culture of the Sandarach cypresses, than to pastoral purposes, but boring beetles must be kept off. It is also to be borne in mind that *Callitris* timber is valuable."

Mr. Stephens referred to the manner in which these trees were destroyed in clearing for sheep farming.

The President said he had frequently noticed the destruction of these trees.

COMPLIMENTARY.

The President moved the usual vote of thanks to the contributors of papers.